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Manabu Ohga

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EXAMINER

RODRIGUEZ, LENNIN R

ART UNIT

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/672,702	Applicant(s) OHGA, MANABU	
	Examiner LENNIN R. RODRIGUEZ	Art Unit 2625	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 18 December 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-10 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 18 December 2007 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Arguments

1. Applicant's arguments filed on 12/18/2007 have been fully considered but they are not persuasive. Applicant's argument on page 10 regarding that "the Zeng reference fails to teach or suggest Feature 2 of Claim 1. There is no disclosure in the Zeng reference even as to the outputting of the color data for the simple black when the input color data indicates the simple black color. From the above feature disclosed in the Zeng reference that the destination color data (C'M'Y'K') is obtained by using the calculated PCS' color data, the calculated output K', and the PCS+K look-up table 80 to determine output C'M'Y'K' color data, it is obvious that the Zeng reference fails to disclose the features of the Claim 1. That is to say, the Zeng reference merely describes calculating, from the K data, the output K' having the same lightness" has been fully considered, in response "determining, when a black-printing compensation is applied (paragraph [0035], where the K values are processed and its being interpreted as black-printing compensation) and the input color data indicates a simple black color (paragraph [0034], lines 4-7, where "managing black separated from color data" is being interpreted as simple black color), output color data for a simple black color having a lightness level equivalent to a lightness level of the input color data (paragraph [0034], lines 14-17 and paragraph [0035], where an output black (K') determination step is performed after determination of the lightness levels), based on the determined

relationship between lightness levels and black color (paragraph [0034, lines 14-21)", also the claim fails to recite where the black-printing compensation is applied to exactly.

2. Objections to the drawings are withdrawn.
3. Rejection made under 35 U.S.C. 101 has been withdrawn.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

5. Claims 1-4 and 6-10 are rejected under 35 U.S.C. 102(e) as being anticipated by Zeng (US Publication 2002/0159081).

(1) regarding claim 1:

Zeng '081 discloses an information processing method for converting input color data indicating a plurality of color components including a black color component into output color data that indicates a plurality of color components including a black color component (paragraph [0033], where there is a plurality of colors including black (K)), said information processing method comprising:

determining a relationship between lightness levels and black color based on characteristics of an output device (paragraph [0034] lines 8-21); and

determining, when a black-printing compensation is applied (paragraph [0035], where the K values are processed and its being interpreted as black-printing compensation) and the input color data indicates a simple black color (paragraph [0034], lines 4-7, where “managing black separated from color data” is being interpreted as simple black color), output color data for a simple black color having a lightness level equivalent to a lightness level of the input color data (paragraph [0034], lines 14-17 and paragraph [0035], where an output black (K') determination step is performed after determination of the lightness levels), based on the determined relationship between lightness levels and black color (paragraph [0034], lines 14-21).

(2) regarding claim 2:

Zeng '081 further discloses wherein the input color data is converted into the output color data via a device-independent color space by using a source profile and a destination profile (paragraph [0029], lines 10-18 and paragraph [0030], lines 8-10, where the input profile is the source profile and the output profile the destination profile);

wherein the relationship between lightness levels and black color is determined by using the destination profile (paragraph [0030], lines 10-14); and

wherein when the input color data indicates a simple black color (paragraph [0034], lines 4-7, where managing black separated from color data is being interpreted as simple black color), lightness information is determined by converting the input color data into color data represented by a device-dependent color space by using the source profile (paragraph [0034], [0035] and [0036], where the lightness information is determined in the conversion of input color data into output color data and the PCS' is

being interpreted as the device-dependent since it is printer-specific), and the output color data for a simple black color is determined from the lightness information by using the relationship between lightness levels and black color (paragraph [0034] and [0035], where the output K' values is determined by the lightness and black relationship).

(3) regarding claim 3:

Zeng '081 further discloses wherein the input data and the output data are either simple black colors (paragraph [0034], lines 4-7, where managing black separated from color data is being interpreted as simple black color) or achromatic.

(4) regarding claim 4:

Zeng '081 further discloses an information processing method for converting input color data into output color data that indicates a plurality of color components including a black color component (paragraph [0033], where there is a plurality of colors including black (K)), said information processing method comprising:

determining a relationship between lightness levels and black color based on characteristics of an output device (paragraph [0034] lines 8-21); and

determining, when a black-printing compensation is applied (paragraph [0035], where the K values are processed and its being interpreted as black-printing compensation) and the input color data indicates an achromatic color (paragraph [0034], lines 4-7, where black is an achromatic color and "managing black separated from color data" is being interpreted as simple black color), output color data for black color having a lightness level equivalent to a lightness level of the input color data (paragraph [0034], lines 14-17 and paragraph [0035], where an output black (K')

determination step is performed after determination of the lightness levels) based on the relationship between lightness levels and black color (paragraph [0034], lines 14-21).

(5) regarding claim 6:

Zeng '081 further discloses a computer-readable storage medium having stored thereon a program for implementing an information processing method for converting input color data indicating a plurality of color components including a black color component into output color data that indicates a plurality of color components including a black color component (paragraph [0041], lines 10-15), said program implementing:

determining a relationship between lightness levels and black color based on characteristics of the output device (paragraph [0034] lines 8-21); and

determining, when a black-printing compensation is applied (paragraph [0035], where the K values are processed and its being interpreted as black-printing compensation) and the input color data indicates black color (paragraph [0034], lines 4-7), output color data for the black color having a lightness level equivalent to a lightness level of the input color data (paragraph [0034], lines 14-17 and paragraph [0035], where an output black (K') determination step is performed after determination of the lightness levels) based on the relationship between lightness levels and black color (paragraph [0034], lines 14-21).

(6) regarding claim 7:

Zeng '081 further discloses a computer-readable storage medium having stored thereon a program for implementing an information processing method for converting input color data into output color data that indicates a plurality of color components

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including a black color component (paragraph [0041], lines 10-15), said program implementing:

determining a relationship between lightness levels and black color based on characteristics of the output device (paragraph [0034] lines 8-21); and

determining, when a black-printing compensation is applied (paragraph [0035], where the K values are processed and its being interpreted as black-printing compensation) and the input color data indicates an achromatic color (paragraph [0034], lines 4-7, where black is an achromatic color), output color data for black color having a lightness level equivalent to a lightness level of the input color data (paragraph [0034], lines 14-17 and paragraph [0035], where an output black (K') determination step is performed after determination of the lightness levels) based on the relationship between lightness levels and black color (paragraph [0034], lines 14-21).

(7) regarding claim 8:

Zeng '081 further discloses an information processing apparatus for converting input color data indicating a plurality of color components including a black color component into output color data that indicates a plurality of color components including a black color component (paragraph [0033], where there is a plurality of colors including black (K)), said information processing apparatus comprising:

a first section arranged to determine a relationship between lightness levels and black color based on characteristics of an output device (paragraph [0034] lines 8-21); and

a second section arranged to determine, when a black-printing compensation is applied (paragraph [0035], where the K values are processed and its being interpreted as black-printing compensation) and the input color data indicates black color (paragraph [0034], lines 4-7), output color data for black color having a lightness level equivalent to a lightness level of the input color data (paragraph [0034], lines 14-17 and paragraph [0035], where an output black (K') determination step is performed after determination of the lightness levels) based on the relationship between lightness levels and black color (paragraph [0034], lines 14-21).

(8) regarding claim 9:

Zeng '081 further discloses an information processing apparatus for converting input color data into output color data that indicates a plurality of color components including a black color component (paragraph [0033], where there is a plurality of colors including black (K)), said information processing apparatus comprising:

a first section arranged to determine a relationship between lightness levels and black color based on characteristics of an output device (paragraph [0034] lines 8-21);
and

a second section arranged to determine, when a black-printing compensation is applied (paragraph [0035], where the K values are processed and its being interpreted as black-printing compensation) and the input color data indicates an achromatic color [0034], lines 4-7, where black is an achromatic color), output color data for black color having a lightness level equivalent to a lightness level of the input color data (paragraph [0034], lines 14-17 and paragraph [0035], where an output black (K')

determination step is performed after determination of the lightness levels) based on the relationship between lightness levels and black color (paragraph [0034, lines 14-21).

(9) regarding claim 10:

Zeng '081 further discloses wherein the black color is a simple black color (paragraph [0034], lines 4-7, where managing black separated from color data is being interpreted as simple black color).

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Zeng (US Publication 2002/0159081) further in view of as applied to claim 4 above, and further in view of Horie et al. (US Patent 5,113,252).

Zeng '081 discloses all the subject matter as described above except wherein the input color data is formed of a red color component, a green color component, and a blue color component, and, when the red color component, the green color component, and the blue color component are equal to each other, the input color data is determined to be an achromatic color.

However, Horie '252 in the same field of endeavor teaches wherein the input color data is formed of a red color component, a green color component, and a blue

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color component (column 11, lines 63-68 and column 12, lines 1-3, where the color data is composed of blue, red and green), and, when the red color component, the green color component, and the blue color component are equal to each other, the input color data is determined to be an achromatic color (column 17, lines 44-47).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made that the input color data is formed of a red color component, a green color component, and a blue color component, and, when the red color component, the green color component, and the blue color component are equal to each other, the input color data is determined to be an achromatic color as taught by Horie '252, in the system of Zeng '081. This provides an image processing apparatus, which can satisfactorily identify a character area and a halftone area in an image including characters (column 2, lines 8-11).

Conclusion

8. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

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the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to LENNIN R. RODRIGUEZ whose telephone number is (571)270-1678. The examiner can normally be reached on Monday - Thursday 7:30am - 6:00pm EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, King Poon can be reached on (571) 272-7440. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/King Y. Poon/
Supervisory Patent Examiner, Art Unit 2625

Lennin Rodriguez
3/14/08